

AL ADWAA

Gem



Science

الصف 4 الابتدائى

مراجعات على شهرى أكتوبر ونوفمبر 2021

Revision (1)

1 Tick (✓) the correct answer(s):

1. What happens if, the giraffe's neck wasn't long enough to reach the trees in its environment?

- [ ] The giraffe's populations will survive.
- [ ] The giraffe's populations will die-off.
- [ ] The giraffe's populations will stay the same.
- [ ] None of the given answers.

2. When species of animals once lived on Earth no longer exist this is called ....

- [ ] extinction
- [ ] camouflage
- [ ] adaptation
- [ ] migration

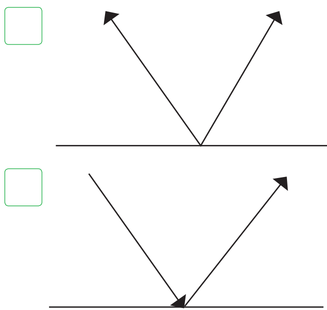
3. Sally wokeup suddenly, as she smelled something burning. She called the fire station when she found that the opposite building was on fire. So, how did the odor of burning make Sally wakeup?

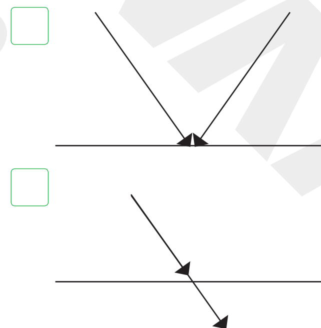
- [ ] She saw the fire – Woke up – Called fire station - Smelled the burning odor
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- [ ] She smelled the odor of burning - Woke up - Saw the fire - Called the fire station

4. What are the two organs that make up the central nervous system?

- [ ] Spinal cord & Brain.
- [ ] Brain only.
- [ ] Spinal cord only.
- [ ] None of the given answers.

5. Which of the following shows how light reflects?





6. Among the following, which ones are classified as natural sources of light?

- [ ] Sun
- [ ] Moon
- [ ] Fire
- [ ] Torch light

7. When some species of trees are in danger, they produce an odor as a message to the neighboring trees, this is considered ....

- [ ] communication
- [ ] camouflage
- [ ] behavioral adaptation
- [ ] structural adaptation

8 Bees use .... patterns to communicate.

- [ ] motion
- [ ] sound
- [ ] dotted
- [ ] light

9 Which sentences are true about forces?

- [ ] They always cause motion.
- [ ] Push & pull are forces.
- [ ] All forces must be balanced.
- [ ] Forces always lead to work.

2 State whether each of the following statements are "True" or "False":

1 Both gills & lungs function to digest food. (..........................)

2 Nerves in the human body, connect sense organs to the brain. (..........................)

3 A wooden desk is an opaque material. (..........................)

4 Nocturnal animals are inactive during nighttime. (..........................)

5 You can change the position or direction of motion of an object by pushing or pulling it. (..........................)

6 Humans can communicate with fireflies using flashes. (..........................)

3 Fill the blanks using the given words:

thermal – Gravitational – sound - countershading – brain – bounces off

1 Bulls shark have a unique camouflaging method called ...., in which its upper side (back) is dark and its underside (belly) is light colored.

2 The .... determines what to do with the information.

3 Light reflection,means light strikes a smooth, shiny surface and ....

4 Read the following statements and decide if the motion of each will stop by either the force of friction (F) or by a collision with another object (C). Write the appropriate abbreviation (F) & (C) in front of each statement.

1 A golf ball rolls across a field. (..........................)

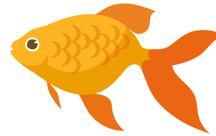
2 A tennis player throws a ball by using a bat to another player. (..........................)

3 A goalkeeper catches the ball. (..........................)

Revision (2)

1 Tick (✓) the correct answer(s):

1. Which of the following won't survive, if it doesn't adapt to survive in its environment?
   - ☐ A mountain.
   - ☐ Ice cream.
   - ☐ A cactus plant.
   - ☐ A car.

2. Which of the following can live both in water & on land?
   - ☐ 
   - ☐ 
   - ☐ 
   - ☐ 

3. When are nocturnal animals awake and active?
   - ☐ During the day.
   - ☐ All the time
   - ☐ During the night.
   - ☐ None of the given answers.

4. .... is the sense organ that helps us to identify the scent of perfume.
   - ☐ Nose
   - ☐ Mouth
   - ☐ Ear
   - ☐ Eyes

5. Which of the following sets reflect light the best?
   - ☐ Metal knife, mirror, aluminum spoon.
   - ☐ Brick wall, mirror, silver spoo.
   - ☐ Metal box, tree trunk, golden spoon
   - ☐ Plastic partition, clear glass window, aluminum pot

6. .... material allows the visible light to pass through it.
   - ☐ Translucent
   - ☐ Transparent
   - ☐ Opaque
   - ☐ All the given answers.

7. .... sense help us to know when food is not good to eat.
   - ☐ Hearing
   - ☐ Tasting
   - ☐ Smelling
   - ☐ sight

8. Nocturnal animals have different eye features, such as:
   - ☐ Membranous layer "Tapetum Lucidum"
   - ☐ Wider pupil
   - ☐ Narrow eyes
   - ☐ Larger eyes

9. When we push or pull an object, it will move in the .... direction of the applied force.
   - ☐ same
   - ☐ opposite
   - ☐ perpendicular
   - ☐ All the given answers.

2 State whether each of the following statements are "True" or "False":

1. There is a common pathway between the digestive and respiratory systems. (............)
2. Each sense organ in the nervous system works on its own independently from the brain, when the brain is busy doing other jobs for the body. (............)
3. The horse's eyes seem to glow in the dark, due to the presence of tapetum lucidum membrane at the back of its eyes that reflects light and promotes night vision. (............)
4. A written message can be decoded by the sender only. (............)
5. A pen falling towards the ground is a pulling force. (............)
6. The rotation (motion) of the sunflower's head in response to the direction of the sunlight is a behavioral adaptation. (............)

3 Fill the blanks using the given words:

increases - transparent - Echolocation - shadow - Diaphragm - decreases - response

1. .... is the muscular organ that allows your lungs to expand & contract.
2. .... is a stimulus towards the surrounding environment.
3. As the bus reduces its speed, its kinetic energy ....
4. .... is a natural phenomenon that allows nocturnal animals to move around in darkness, so they can navigate, hunt, identify friends and enemies, and avoid obstacles in the dark.
5. Opaque objects form .... behind them, while .... objects don't.

4 Match:

Sensory organ	Sensory information
Hand (skin)	Light coming from an open window
Eyes	Sour taste of a lemon
Ears	Cooking odor
Tongue	Heat from a hot stove
Nose	Loud noise blasting from a car speaker

Revision (3)

1 Tick (✓) the correct answer(s):

1. Camouflage is a type of adaptation by which an organism hides from its enemies by merging its color to that of its surroundings. Which of the following colors will best suite a chameleon to hide from its enemies in a forest if it sits on a tree branch?
   - [ ] Green
   - [ ] Blue
   - [ ] Brown
   - [ ] Red
2. The trait that helps a living thing survive is called a/an ....
   - [ ] trait
   - [ ] adaptation
   - [ ] survivor
   - [ ] All the given answers.
3. How does the sound echo occur?
   - [ ] Sound waves bounce off objects.
   - [ ] Sound waves are absorbed by objects.
   - [ ] Sound waves travel in straight lines.
   - [ ] None of the given answers.
4. Sense organs receive the environmental ....
   - [ ] response
   - [ ] stimuli
   - [ ] reflex
   - [ ] All the given answers
5. Living organisms that are awake and active during night are called ....
   - [ ] blind
   - [ ] nocturnal
   - [ ] diurnal (morning active)
   - [ ] None of the given answers.
6. In the past, ancient Egyptians invented a writing system which is made up of ....
   - [ ] symbols, cuneiform drawings & letters
   - [ ] cuneiform drawings & letters
   - [ ] symbols & letters
   - [ ] symbols
7. Humpback whales make music in series of phrases in a pattern during .... months.
   - [ ] summer
   - [ ] spring
   - [ ] winter
   - [ ] autumn
8. Two teams playing tug of war game, 10 players on each side of the rope. What would you say if the two teams didn't move?
   - [ ] The two teams have unbalanced opposite forces.
   - [ ] The two teams have balanced opposite forces.
   - [ ] The force of one team is greater than the other.
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9. Which of the following indicates the motion?
   - [ ] A cargo car affected by a balanced force.
   - [ ] A body that does not change its position.
   - [ ] A body that changes its position.
   - [ ] A static ball on the ground.

2 State whether each of the following statements are "True" or "False":

1. Humans have wider eyes than nocturnal animals. (..............................)
2. The friction force decreases the speed of a moving object. (..............................)
3. There is a mirror-like membrane in the leopard eyes acts to allow its eyes to collect more light. (..............................)

3 Fill the blanks using the given words:

Nocturnal – more – Friction – hearing – increases - Communication system – less - sight

1. .... consists of many parts that work together to transfer information from one place to another.
2. Eye pupils usually open wider to allow .... light to enter into the eyes, and gets narrower to .... the amount of light entering the eyes.............................. animals' eyes glow in the dark.
3. .... force is the force that exists between two touching surfaces.
4. When an object falls on the ground, the response of .... sense is faster than the response of .... sense, as it helps us to catch the object before it falls.

4 Look at the figure, then answer:



1. This animal has thick fatty layer under its skin. (True - False)
2. This animal migrates to warm places. (True - False)
3. This animal can respire through its skin. (True - False)

Revision (4)

1. Tick (✓) the correct answer(s):

1. Which feature would be the most helpful to a desert plant?
   - [ ] Small leaves.
   - [ ] Large seeds.
   - [ ] Smelly flowers.
   - [ ] Long deep roots.

2. How do adaptations affect the survival rate among species?
   - [ ] By increasing the survival rate.
   - [ ] By decreasing the survival rate.
   - [ ] By changing the overall structure and behavior of the living organisms.
   - [ ] None of the given answers.

3. Which scenario shows how does your nervous system receive a message when you touch cactus thorns?
   - [ ] Your finger bleeds.
   - [ ] Withdrawing your hand quickly.
   - [ ] You feel happy.
   - [ ] You keep touching the thorns.

4. .... is similar to the owl in its wide range vision.
   - [ ] Tarsier
   - [ ] Camel
   - [ ] Human
   - [ ] Cat

5. How can you see an opaque object?
   - [ ] The light rays refract, bouncing to the eyes.
   - [ ] The light rays reflect, bouncing to the opaque object.
   - [ ] The light rays refract, bouncing to the opaque object.
   - [ ] The light rays reflect, bouncing to the eyes.

6. Vision is .... when we look inside a dark box through a narrow whole.
   - [ ] unclear
   - [ ] neutral
   - [ ] clear
   - [ ] colorful

7. The ability of beetles to emit light flashes is a kind of ....
   - [ ] behavioral adaptation
   - [ ] structural adaptation
   - [ ] camouflage
   - [ ] communication

8. A shockwave truck moves .... the ordinary cars because its engines are stronger than the engines of ordinary cars.
   - [ ] faster than
   - [ ] slower than
   - [ ] as same as
   - [ ] None of the given answers

2 State whether each of the following statements are "True" or "False":

1. Adaptation is known as a type of communication between living organisms. (..................)
2. Nocturnal is the behavior in which an animal pretends to be dead so that their enemies won't chase them. (..................)
3. A sailboats' motion in the water is due to air this is considered a pulling force. (..................)

3 Fill the blanks using the given words:

move - light reflection - reflex time - pushing

1. The time taken by a jerboa to respond to a danger is known as ....
2. .... is the returning back of the light, when it falls on a smooth surface.
3. A goalkeeper saving the ball is an example of ....force.
4. If an unbalanced force is applied on an object, the object will ....

4 Match:

(A)	(B)
Chameleon	Grows thick fur on its body
Birds	They migrate long distances in winter
Bear	Changes its color

5 Look at the figure, then answer:

a) Write (S) for the Structural adaptation and (B) for the Behavioral adaptation:

1. The Heliotropic head of a sunflower. (..................)
   (Hint: Heliotropic head means that the flower's head is able to rotate 360 degrees.)
2. The motion of the sunflower's head in response to the Sun's direction. (..................)



b) The sunflower's head during the sunrise time moves toward the .... direction, while during the sunset moves toward the .... direction.

Revision (5)

1 Tick (✓) the correct answer(s):

1 Tigers and leopards have unique patterns on their body, this adaptation helps them to ....

- [ ] keep their bodies warm
- [ ] cool down their bodies
- [ ] mix with the surroundings
- [ ] look beautiful

2 Which of the following teeth enable living organism to eat grass (plants)?

- [ ] 
- [ ] 
- [ ] 
- [ ] 

3 When your eyes blink quickly it avoids too much light to fall on them, which two systems are involved in this process?

- [ ] Nervous & respiratory
- [ ] Circulatory & muscular
- [ ] Nervous & muscular
- [ ] Circulatory & respiratory

4 The time taken by an organism to respond to a danger is known as ....

- [ ] delayed response
- [ ] response time
- [ ] adaptation
- [ ] None of the given answers.

5 Which of the following explains the reason behind seeing yourself when you look at a mirror?

- [ ] Light is reflected, bouncing from the mirror.
- [ ] Light is reflected as it passes through the mirror.
- [ ] Light is refracted, bouncing to the mirror.
- [ ] Light is refracted as it passes through the mirror.

6 Information from the environment is received by ....

- [ ] brain
- [ ] nerves
- [ ] sensory organs
- [ ] None of the given answers

7 As the force increases, the object moves .... distance.

- [ ] longer
- [ ] shorter
- [ ] zero
- [ ] All the given answers.

2 State whether each of the following statements are "True" or "False":

1. The owl`s bowl-like head helps it to see what it can`t hear. (..................)
2. The visual stimulation is faster than the auditory stimulation. (..................)
3. Luminous beetles, don't emit light. (..................)
4. Bodies in motion do not have any energy. (..................)
5. Pushing force has no energy. (..................)

3 Fill the blanks using the given words:

brain – scents – adaptation – spine – behavioral

1. .... is a characteristic change in a living organism over time to aid their survival and continuity.
2. The central nervous system consists of .... and the ....
3. A group of ants communicate by releasing .... to guide other ants to find food. This is considered .... adaptation.

4 Mention the energy conversions in each of the following:

1. Bus's engine.

   ....

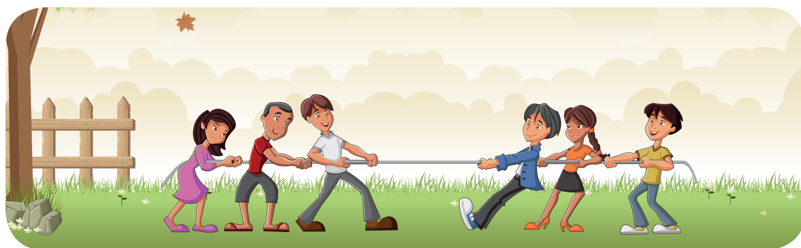
2. Light bulb.

   ....

3. Food we eat.

   ....

5 Look at the figure, then answer:



1. The force shown in the figure above is a balanced or an unbalanced force?

   ....

2. If the left group missed a member of the team, is it going to be a balanced or an unbalanced force?

   ....



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2 When species of animals once lived on Earth no longer exist this is called ....

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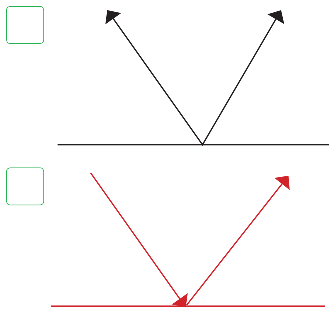
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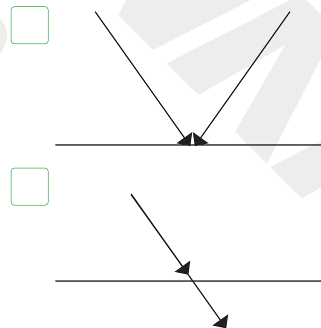
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4 What are the two organs that make up the central nervous system?

- [ ] Spinal cord & Brain.
- [ ] Brain only.
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5 Which of the following shows how light reflects?





6 Among the following, which ones are classified as natural sources of light?

- [ ] Sun
- [ ] Moon
- [ ] Fire
- [ ] Torch light

7 When some species of trees are in danger, they produce an odor as a message to the neighboring trees, this is considered ....

- [ ] communication
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8 Bees use .... patterns to communicate.

- [ ] motion
- [ ] sound
- [ ] dotted
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9 Which sentences are true about forces?

- [ ] They always cause motion.
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1 Both gills & lungs function to digest food. (False)

2 Nerves in the human body, connect sense organs to the brain. (True)

3 A wooden desk is an opaque material. (True)

4 Nocturnal animals are inactive during nighttime. (False)

5 You can change the position or direction of motion of an object by pushing or pulling it. (True)

6 Humans can communicate with fireflies using flashes. (True)

3 Fill the blanks using the given words:

thermal – Gravitational – sound - countershading – brain – bounces off

1 Bulls shark have a unique camouflaging method called countershading, in which its upper side (back) is dark and its underside (belly) is light colored.

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2 A tennis player throws a ball by using a bat to another player. (C)

3 A goalkeeper catches the ball. (C)

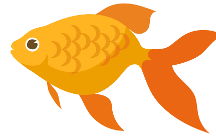
Revision (2)

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1. Which of the following won’t survive, if it doesn't adapt to survive in its environment?
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   - ☐ Ice cream.
   - ☐ A cactus plant.
   - ☐ A car.

2. Which of the following can live both in water & on land?

☐ 

☐ 

☐ 

☐ 

3. When are nocturnal animals awake and active?
   - ☐ During the day.
   - ☐ All the time
   - ☐ During the night.
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4. .... is the sense organ that helps us to identify the scent of perfume.
   - ☐ Nose
   - ☐ Mouth
   - ☐ Ear
   - ☐ Eyes

5. Which of the following sets reflect light the best?
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9. When we push or pull an object, it will move in the .... direction of the applied force.
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2. Each sense organ in the nervous system works on its own independently from the brain, when the brain is busy doing other jobs for the body. (False)
3. The horse's eyes seem to glow in the dark, due to the presence of tapetum lucidum membrane at the back of its eyes that reflects light and promotes night vision. (True)
4. A written message can be decoded by the sender only. (False)
5. A pen falling towards the ground is a pulling force. (True)
6. The rotation (motion) of the sunflower's head in response to the direction of the sunlight is a behavioral adaptation. (True)

3 Fill the blanks using the given words:

increases - transparent - Echolocation - shadow - Diaphragm - decreases - response

1. Diaphragm is the muscular organ that allows your lungs to expand & contract.
2. Response is a stimulus towards the surrounding environment.
3. As the bus reduces its speed, its kinetic energy decreases.
4. Echolocation is a natural phenomenon that allows nocturnal animals to move around in darkness, so they can navigate, hunt, identify friends and enemies, and avoid obstacles in the dark.
5. Opaque objects form shadow behind them, while transparent objects don't.

4 Match:

Sensory organ	Sensory information
Hand (skin)	Light coming from an open window
Eyes	Sour taste of a lemon
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Revision (3)

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2. The friction force decreases the speed of a moving object. (True)
3. There is a mirror-like membrane in the leopard eyes acts to allow its eyes to collect more light. (True)

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Nocturnal – more – Friction – hearing – increases - Communication system – less - sight

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4 Look at the figure, then answer:



1. This animal has thick fatty layer under its skin. (True - False)
2. This animal migrates to warm places. (True - False)
3. This animal can respire through its skin. (True - False)

Revision (4)

1. Tick (✓) the correct answer(s):

1. Which feature would be the most helpful to a desert plant?
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   - [ ] clear
   - [ ] colorful

7. The ability of beetles to emit light flashes is a kind of ....
   - [ ] behavioral adaptation
   - [ ] structural adaptation
   - [ ] camouflage
   - [ ] communication

8. A shockwave truck moves .... the ordinary cars because its engines are stronger than the engines of ordinary cars.
   - [ ] faster than
   - [ ] slower than
   - [ ] as same as
   - [ ] None of the given answers

2 State whether each of the following statements are "True" or "False":

1. Adaptation is known as a type of communication between living organisms. (False)
2. Nocturnal is the behavior in which an animal pretends to be dead so that their enemies won't chase them. (False)
3. A sailboats' motion in the water is due to air this is considered a pulling force. (False)

3 Fill the blanks using the given words:

move - light reflection - reflex time - pushing

1. The time taken by a jerboa to respond to a danger is known as the reflex time .
2. Light reflection is the returning back of the light, when it falls on a smooth surface.
3. A goalkeeper saving the ball is an example of pushing force.
4. If an unbalanced force is applied on an object, the object will move.

4 Match:

(A)	(B)
Chameleon	Grows thick fur on its body
Birds	They migrate long distances in winter
Bear	Changes its color

(Answer arrows: Chameleon → Changes its color; Birds → They migrate long distances in winter; Bear → Grows thick fur on its body)

5 Look at the figure, then answer:

a) Write (S) for the Structural adaptation and (B) for the Behavioral adaptation:

1. The Heliotropic head of a sunflower. (S)
   (Hint: Heliotropic head means that the flower's head is able to rotate 360 degrees.)



2. The motion of the sunflower's head in response to the Sun's direction. (B)

b) The sunflower's head during the sunrise time moves toward the east direction, while during the sunset moves toward the west direction.

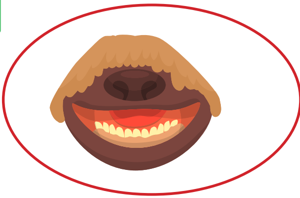
Revision (5)

1 Tick (✓) the correct answer(s):

1. Tigers and leopards have unique patterns on their body, this adaptation helps them to ....

- [ ] keep their bodies warm
- [ ] cool down their bodies
- [ ] mix with the surroundings
- [ ] look beautiful

2. Which of the following teeth enable living organism to eat grass (plants)?

- [ ] 
- [ ] 
- [ ] 
- [ ] 

3. When your eyes blink quickly it avoids too much light to fall on them, which two systems are involved in this process?

- [ ] Nervous & respiratory
- [ ] Circulatory & muscular
- [ ] Nervous & muscular
- [ ] Circulatory & respiratory

4. The time taken by an organism to respond to a danger is known as ....

- [ ] delayed response
- [ ] response time
- [ ] adaptation
- [ ] None of the given answers.

5. Which of the following explains the reason behind seeing yourself when you look at a mirror?

- [ ] Light is reflected, bouncing from the mirror.
- [ ] Light is reflected as it passes through the mirror.
- [ ] Light is refracted, bouncing to the mirror.
- [ ] Light is refracted as it passes through the mirror.

6. Information from the environment is received by ....

- [ ] brain
- [ ] nerves
- [ ] sensory organs
- [ ] None of the given answers

7. As the force increases, the object moves .... distance.

- [ ] longer
- [ ] shorter
- [ ] zero
- [ ] All the given answers.

2 State whether each of the following statements are "True" or "False":

1. The owl`s bowl-like head helps it to see what it can`t hear. (False)
2. The visual stimulation is faster than the auditory stimulation. (True)
3. Luminous beetles, don't emit light. (False)
4. Bodies in motion do not have any energy. (False)
5. Pushing force has no energy. (False)

3 Fill the blanks using the given words:

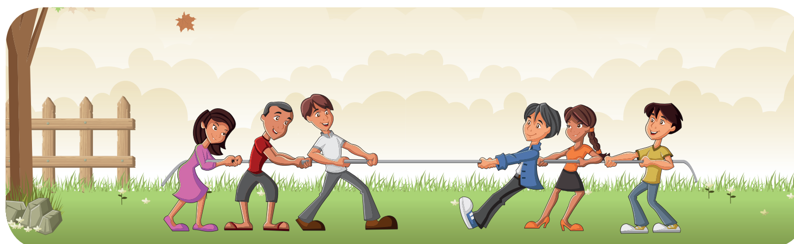
brain – scents – adaptation – spine – behavioral

1. Adaptation is a characteristic change in a living organism over time to aid their survival and continuity.
2. The central nervous system consists of the brain and the spine .
3. A group of ants communicate by releasing scents to guide other ants to find food. This is considered behavioral adaptation.

4 Mention the energy conversions in each of the following:

1. Bus's engine.
   Chemical energy → Kinetic energy.
2. Light bulb.
   Electric energy → Light energy.
3. Food we eat.
   Chemical energy → Kinetic energy.

5 Look at the figure, then answer:



1. The force shown in the figure above is a balanced or an unbalanced force?
   A balanced force.
2. If the left group missed a member of the team, is it going to be a balanced or an unbalanced force?
   An unbalanced force.